

Attorney Docket: 6550-000013

Serial No. 09/114,665

IN THE CLAIMS:

Please amend Claims 1-7 and add new Claims 20-25 as follows:

- 94 23 01 1. (Amended) A method for producing an *in-situ* composite solder having an intermetallic phase comprising the steps of:
- a) combining a solder with the components of the intermetallic phase to form a mixture;
 - b) heating the mixture of step a) to form a non-solid;
 - c) rapidly cooling the mixture of step b) at a rate of at least about 100 °C/sec.

Claim 2, line 1, after "solder" please delete "matrix".

Claim 3, line 1, after "solder" please delete "matrix".

Claim 4, line 1, after "solder" please delete "matrix".

Claim 5, line 1, after "solder" please delete "matrix".

Claim 6, line 1, after "solder" please delete "matrix".

- 95 23 02 7. (Amended) The method of Claim 1 where the components of the intermetallic phase [comprises] comprise about 20 volume % of the composite solder.

96 20. (New) A method for producing an *in-situ* composite solder having an intermetallic phase comprising the steps of:

- a) combining a solder with the components of the intermetallic phase to form a

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mixture;

- b) heating the mixture of step a) to form a non-solid;
- c) cooling the mixture of step b) to form a solid;
- d) reheating the mixture of step c) to form a non-solid; and
- e) rapidly cooling the mixture of step d) at a rate of at least about 100 °C/sec.

21. (New) The method of Claim 20 where the solder is a lead-free eutectic solder.

22. (New) The method of Claim 20 where the components of the intermetallic phase comprise about 20 volume % of the composite solder.

23. (New) The method of Claim 20 where the intermetallic phase comprises one of the elements of the eutectic solder and a transition metal.

24. (New) The method of Claim 20 where the mixture is reheated to a temperature greater than the melting point of the intermetallic phase.

25. (New) The method of Claim 20 wherein the mixture is cooled by splat quenching, spray atomization or by continuous casting into a solid form.